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VENEER-LOG PRODUCTION

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RECEIPTS
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REGION

1972

James E. Blyth

NORTH CENTRAL FOREST EXPENDED STATIONS
FOREST SERVICE • U.S. DEPARTMENTS SERVICES

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VENEER-LOG PRODUCTION AND RECEIPTS, NORTH CENTRAL REGION, 1972

James E. Blyth

This report of 1972 veneer-log production and receipts in the North Central Region is divided into two sections--Lake States (Minnesota, Wisconsin, and Michigan) and Central States (Indiana, Illinois, Iowa, and Missouri)--because different species are grown and used as veneer logs in each area. Moreover, less information can be released about the Central States because more detailed data would reveal the operations of individual mills. Export data are reported for Canada but not for other countries.

All but one veneer mill using North Central Region timber in 1972 reported their veneer-log receipts by species and State of origin. Their cooperation is gratefully acknowledged. Receipts were estimated for the nonresponding mill. Two large mills are not included in this report to avoid disclosure of their operations (fig. 1); neither had been included in previous reports.

Of the 57 active veneer mills in the Region in 1972, 38 were standard² veneer mills and 19 were container³ veneer mills. From 1970 to 1972, six standard veneer mills and three container veneer mills closed; one standard veneer mill began operations. Another standard veneer mill closed during 1972.

LAKE STATES

Since 1948, Lake States veneer-log production has been declining, although it revived slightly in 1972 (fig 2). Many mills have closed and veneer-log production is now less than two-fifths of the 1948 total. The container veneer industry has been hit hard by substitution of materials such as plastics and paperboard. Container veneer-log production in 1972 was less than one-tenth the volume in 1948. Standard veneer-log production fell sharply from 1948 to 1950, but has been stable since then. The standard veneer industry is plagued by foreign competition and simulated natural wood finishes on plastic, vinyl, hardboard, and nonfigured plywood panels.

Production

Veneer-log production in the Lake States in 1972 was 42.2 million board feet, 7.8 million board feet higher than in 1970. Much of the volume (38.0 million board feet) was in standard veneer logs; the remainder was in container veneer logs.

For the first time, red oak surpassed hard maple as the principal species cut (fig. 3). Spanish-Mediterranean furniture was in great demand for home furnishings, and oak is the preferred species. Other major species harvested were yellow birch and elm. These four species constituted 69 percent of the total harvest in the Lake States.

Hard maple may become the dominant species again. During 1972, the Japanese bowling industry expanded rapidly and large quantities of high-quality hard maple were exported to Japan for bowling alley bedstock. Lower quality maple is being shipped to Japan for bowling pins. As the Japanese bowling alley boom subsides, more normal market conditions may allow domestic hard maple veneer markets to expand more rapidly.

¹ Production is the volume of veneer logs cut from a specific area; receipts are the volume of veneer logs received by mills in a specific area regardless of geographic source.

²Commercial, face, and specialty veneer mills that manufacture veneer used in doorskins, furniture, wall panels, specialty plywood, and similar items.

³Mills that manufacture veneers used in boxes, crates, packing cases, and other wood veneer containers.

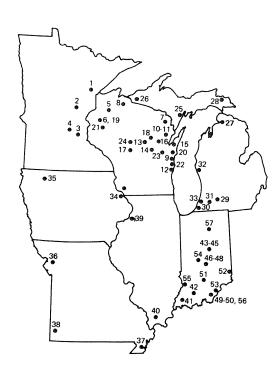


Figure 1.--Location of active veneer mills in the North Central Region, 1972.

		MINNESOTA	
Type of :	Num-	*	:
mill :	ber	: Name of mill	: Location
Standard	1	Diamond National Co. 1	63
Standard	2	Wahkon Veneer Mills	Cloquet Wahkon
Container	3	Allen Wood Products, Inc.	Hopkins
	4	Elk River Box Co.	Elk River
		WISCONSIN	
Standard	5 6	Birchwood Lumber & Veneer Co. Birchwood Mfg. Co.	Birchwood Rice Lake
	7	Goodman Veneer Mill, UOP	Goodman
	8	Mellen Veneer Mill, UOP	Mellen
	9	Eggers Plywood Co.	Two Rivers
	10 11	Gillett Veneer & Plywood Co. Linwood, Inc.	Gillett Gillett
	12	Larson Plywood Co., Inc.	Sheboygan
	13	Hatley Veneer Co., Inc.	Hatley
	14	Marion Plywood Corp.	Marion
	15 16	Champion International Weber Veneer & Plywood Co.	Algoma
	17	Weyerhaeuser Co.	Shawano Marshfield
	18	Wisconsin Timber & Land Co.	Mattoon
Container	19	Brunette Box & Veneer	Rice Lake
	20 21	Dufeck Mfg. Co. Ebner Box Factory	Denmark Cameron
	22	Konz Container Co.	Howard Grove
	23	Seymour Woodenware Co.	Seymour
	24	Standard Container Co.	Edgar
		MICHIGAN	
		FILCHIGAN	
Standard	25	Anthony & Co.	Escanaba
	26	Iron Wood Products1	Bessemer
	27 28	Manthei Bros. Soo Hardwoods, Inc.	Petoskey Sault Ste. Marie
Container	29	A. C. Hensel Mfg. Co.	Augusta
	30	Nelson R. Anderson Co.	Stevensville
	31	Fruit Growers Package Co.	Paw Paw
	32 33	Michigan Crate & Basket Riverside Package Co.	Shelby Riverside
		Alveronde nachage cov	RIVEIBIGE
		IOWA	
Standard	34	R. S. Bacon Veneer Co.	Dubuque
	35	Iowa Veneers, Inc.	Spencer
		MISSOURI	
		1110000111	
Standard	36	Missouri Valley Walnut Co.	St. Joseph
Container	37 38	Betz Tipton Veneer Co. Crumbliss Wood Products	Caruthersville Neosho
		Crumbilss wood Froducts	Neosno
		ILLINOIS	
Standard	39	Swords Veneer & Lumber Co.	Rock Island
Container	40	The Martin Bros. Container	V !-
		& Timber Products, Inc.	Karnak
		INDIANA	
Standard	.1	Proposed 11 a Manage Co	F
Scandard	41 42	Evansville Veneer Co. Jasper Veneer Mills	Evansville Jasper
	43	Central Veneer, Inc.	Indianapolis
	44	Curry Miller Veneers, Inc.	Indianapolis
	45 46	Indiana Veneers, Inc.	Indianapolis
	46 47	David R. Webb Co. Amos Thompson Corp	Edinburg Edinburg
	48	Hill Bros. Veneer Co., Inc.	Edinburg
	49	B. L. Curry & Sons	New Albany
	50 51	Chester B. Stem, Inc.	New Albany
	51 52	National Veneer & Lumber Co. Pierson-Holowell Co., Inc.	Seymour Lawrenceburg
	53	Roberts & Strack Veneer Co.	Clarksville
	54	Theising Veneer Co., Inc.	Mooresville
Container	55 56	Farrell Box Co., Inc. New Albany Box & Basket Co., Inc.	Decker
	56 57	W. C. Redmon Sons, Inc.	New Albany Peru

 $^{^{\}mathrm{I}}\mathrm{Receipts}$ not recorded to avoid disclosure of operations of these mills.

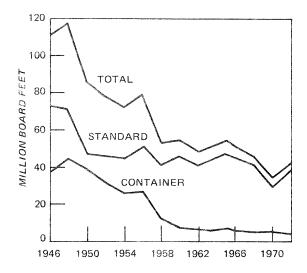


Figure 2.—Veneer-log production by year and type of industry, Lake States, 1946-1972.

The major changes in the veneer-log harvest between 1972 and 1970 were as follows:

(T)	housand board feet)	(Percent)
	2,873	42
	1,323	35
	1,286	101
	817	146
	772	263
irch	721	16
	(T)	2,873 1,323 1,286 817 772

Many mills (76), primarily in the Midwest, used Lake States veneer logs in 1972. Of these, 28 used hard maple logs, 22 used red oak, 22 used elm, and 12 used yellow birch.

Wisconsin harvested 19.5 million board feet of logs in 1972 compared with only 15.8 million board feet in 1970. All but 7 percent was consumed in Wisconsin. Leading species harvested were red oak (7.1 million board feet), elm (3.4 million), and aspen (2.1 million). Walnut and butternut were the principal species shipped to other States.

Michigan produced 18.5 million board feet of logs: 10.8 million board feet went to Wisconsin, and 4.6 million board feet was retained in Michigan. Hard maple (39 percent) and yellow birch (23 percent) were the prime species cut for veneer logs.

Eighty-two percent of the Minnesota harvest of 4.2 million board feet was consumed in Wisconsin. The important species cut in terms of volume were red oak, elm, basswood, and cottonwood.

The Lake States exported 4.5 million board feet of veneer logs in 1972 (52 percent more than in 1970), primarily to Indiana (51 percent), Ohio (15 percent), and Canada (14 percent). Michigan supplied two-thirds of the export volume; hard maple and walnut were the main species exported.

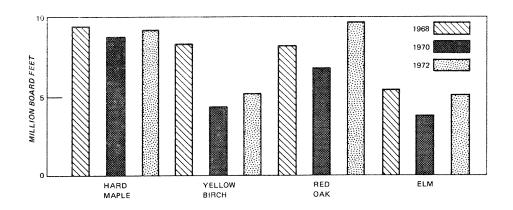


Figure 3.--Veneer-log production in the Lake States by major species, 1968, 1970, and 1972.

Mill Receipts

Lake States mills procured 42.3 million board feet of veneer logs in 1972, a gain of 5.3 million board feet from 1970. Imports from other States and Canada dropped 1 million board feet between 1970 and 1972. Hard maple, red oak, and yellow birch were in greater demand than in 1970 because furniture, door, cabinet, and paneling markets were excellent in 1972. Elm was also heavily used, partly because Dutch elm disease is spreading in the Lake States and high-quality trees are being salvaged for veneer.

Veneer mills are especially abundant in northeastern Wisconsin where several large mills produce high-quality face and specialty veneers. Wisconsin mills received 36.5 million board feet of veneer logs, surpassing 1970 by 6.6 million board feet. Nearly all (99 percent) of the red oak veneer log volume received in the Lake States was consumed in Wisconsin. Fifty percent of the log requirements in Wisconsin came from outside the State: Michigan (30 percent), Minnesota (9 percent), Canada (7 percent), and Iowa (4 percent). Michigan was a prime source of hard maple and yellow birch logs.

Michigan veneer plants received 5.3 million board feet of veneer logs, down 1.4 million board feet from 1970. Hard maple, yellow birch, and paper birch are the significant species used. Michigan forests supplied 86 percent of the veneer-log requirements in the State.

Minnesota's mills acquired half a million board feet of veneer logs, a slight increase from 1970.

Plant Residue⁴

Less than 3 percent of the wood residue generated at veneer mills in the Lake States was disposed of as waste in 1972. Important uses for coarse residue were in fiber products (62 percent) and as industrial fuel (21 percent). These were the major uses for fine residues, also. Nearly half (48 percent) of the total wood residue is used for fiber products.

Eighty percent of the bark was burned as industrial fuel. Consequently, disposal of plant residue does not appear to be a problem for the veneer industry, except for mills seeking higher value uses for their residue.

CENTRAL STATES

Since 1956, output of veneer logs in the Central States has ranged from 39.9 million board feet in 1960 to 23.5 million board feet in 1970 (fig. 4). The overall trend has been moderately downward. Harvesting of cottonwood veneer logs dropped sharply during this period because container veneer markets, a major market for cottonwood, contracted.

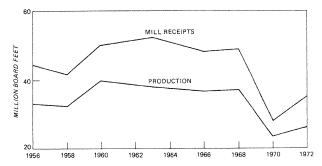


Figure 4.--Veneer-log production and mill receipts in the Central States, 1956-1972.

From 1956 to 1972 veneer-log receipts in the Central States peaked at 52.2 million board feet (in 1963) and reached a low of 28.0 million board feet (in 1970). During these years, the Central States veneer industry has imported many of its logs from other areas.

Production

Excellent fine hardwood veneer markets in such industries as furniture, kitchen cabinets, and other home furnishings sparked a rise in standard veneer-log production from 16.9 million board feet in 1970 to 21.8 million board feet in 1972. Meanwhile, the container veneer-log harvest plunged from 6.6 million board feet in 1970 to 4.4 million board feet in 1972.

Ten million board feet of walnut veneer logs were cut in 1972. Other important species harvested were cottonwood, white oak, and pecan. The major changes in the veneer-log harvest were as follows:

[&]quot;Plant residue at veneer mills is classed as: (1) bark; (2) coarse (wood)--suitable for chipping, such as veneer cores; or (3) fine (wood)--not suitable for chipping, such as veneer clippings.

Harves		70-1972
Species	(Thousand board feet)	(Percent)
	Dourd Jeed,	
Walnut	+1,865	+23
White oak	+1,651	+99
Cottonwood	-1,272	-27
Pecan	+ 882	+58

Indiana forests furnished about half (13.5 million board feet) of the veneer-log volume harvested in the Central States in 1972 and 2.3 million board feet more than in 1970. Harvesting of veneer logs increased over 1970 in every State except Iowa. Exports were 5.3 million board feet from the Central States in 1972, mainly to Kentucky (42 percent), Wisconsin (29 percent), and Ohio (26 percent).

Receipts

Central States mills received 35.1 million board feet of veneer logs in 1972, an increase of 7.1 million board feet compared to 1970. These mills imported 14.2 million board feet of logs from other widespread areas including more than 1 million board feet each from Kentucky, Ohio, Oklahoma,

Michigan, Tennessee, Mississippi, Wisconsin, and Pennsylvania. Kentucky was an important supplier of walnut, Oklahoma and Mississippi of pecan, and Pennsylvania of black cherry.

Species in greatest demand by Central States veneer mills in 1972 were walnut, pecan, cottonwood, and white oak. White oak receipts were slightly more than double those in 1970, while pecan receipts rose 90 percent. Both are important furniture veneer species.

Central and southern Indiana has a large concentration of veneer mills; consequently, Indiana received 76 percent of the log receipts in the Central States, including 8.8 million board feet of walnut and more than 99 percent of the white oak.

Plant Residue

Only 13 percent of the wood residue and 12 percent of the bark was disposed of as waste. Industrial fuel was the main use for both wood and bark residue. About one-eighth of the wood residue was consumed at pulp mills. As in the Lake States, disposal of plant residue does not seem to be a significant problem for the veneer industry, unless higher value uses are needed.

Table 1.--Production and imports of veneer logs, Lake States, 1972 (In thousand board feet, International 1/4-inch log rule)

CDCATCC AND		RODUCTION	BY STATES 1	:	***********************************	IMPORTS		: TOTAL
SPECIES AND DESTINATION	: : MICHIGAN :	: MINNESOTA:		REGIONAL :	OTHER : U.S. :	CANADA :		:RECEIPTS 2
PINE WISCONSIN	3	0	45	48	0	0	0	48
TOTAL	3	0	45	48	0	0	0	48
ASH				120		•		****
MICHIGAN MINNESOTA	128 0	0 10	0	128 10	0	0	0	
WISCONSIN	107	50	302	459	32	0	32	
EXPORTED 3/	6	0	0	6	0	0	0	0
TOTAL	241	60	302	603	32	0	32	629
ASPEN	214			21/	•		•	2.4
MICHIGAN MINNESOTA	214 0	26 2	0	214 26	0	0	0	
WISCONSIN	38	15	2110	2163	ő	ō	ŏ	2163
EXPORTED 3/	0	155	0	155	0	0	0	0
TOTAL	252	196	2110	2558	0	0	0	24n3
BASSWOOD					_			_
MICHIGAN	306	0	0	306	0	0	0	
MINNESOTA WISCONSIN	0 318	133 470	0 1621	133 2409	0 252	0	0 252	
EXPORTED 3/	25	0	0		0	ő	0	
TOTAL	649	603	1621	2873	252	0	252	3100
BEECH		•					······································	
MICHIGAN	178	0	0	178	0	0	0	178
WISCONSIN EXPORTED 3/	493 347	0	47 0	540 347	0	30 0	30 0	
TOTAL	1018	0	47	1065	0	30	30	748
BLACK CHFRRY								
MICHIGAN	22	0	0	22	0	0	0	22
WISCONSIN	31	22	50	103	3	0	3	
EXPORTED 3/	26	0	0	26	0	0	0	0
TOTAL	79	22	50	151	3	0	3	128
AUTTERNUT								
WISCONSIN	0	0	2	2	0	0	0	2
EXPORTED 3/	0	19	325	344	0	0	0	0.
TOTAL	0	19	327	346	0	0	0	2
COTTONWOOD								
MICHIGAN	570	0	0	570	0	0	0	570
MINNESOTA WISCONSIN	0	82 510	0 106	82 616	0 8	0	0 8	82 624
TOTAL	570	592	106	1268	8		 8	1276
ELM MICHIGAN	144	0	11	155	0	0	0	155
MINNESOTA	0	5	0	5	0	Ö	0	5
WISCONSIN	794	625	3440	4859	236	0	236	5095
EXPORTED 3/	1	0	78	79	0	0	0	0
TOTAL	939	630	3529	5098	236	0	236	5255
HARD MAPLE	****							
MICHIGAN MINNESOTA	1183 0	0 15	26 26	1183 41	0	44	44 0	1227
WISCONSIN	4681	80	1881	6642	161	0 1350	1511	41 8153
EXPORTED 3/	1257	0	132	1389	0	1330	0	0133
TOTAL	7121	95	2039	9255	161	1394	1555	9421

TABLE 1 CONTINUED ON NEXT PAGE

TABLE 1 CONTINUE	TAB	E	1 C	ON	TI	NU	F	D
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TABLE I CONTINUED								
PAPER BIRCH	and the name of the state of th			 				
MICHIGAN	798	22	44	864	0	154	154	1018
WISCONSIN	25	200	123	348	0	91	91	439
EXPORTED 3/	ō	11	0	11	ő	ō	ō	0
TOTAL	823	233	167	1223	0	245	245	1457
								~~~~
PECAN	,				_			
MICHIGAN	4	0	0	4	0	0	0	4
EXPORTED 3/	82	0	0	82	0	0	0	0
TOTAL	86	0	0	86	0	0	0	4
RED OAK								
MICHIGAN	109	0	0	109	0	0	0	109
MINNESOTA	0	26	Ö	26	Ö	Ó	Ö	26
			7094		759	-	829	9954
WISCONSIN	816	1215		9125		70		
EXPORTED 3/	402	24	17	443	0	0	0	0
TOTAL	1327	1265	7111	9703	759	70	829	10089
SOFT MAPLE								
MICHIGAN	205	0	0	205	0	0	0	205
								154
MINNESOTA	0	118	10	128	26	0	26	
WISCONSIN	106	169	414	689	96	41	137	826
EXPORTED 3/	18	0	0	18	0	0	0	0
TOTAL	329	287	424	1040	122	41	163	1185
WALNUT						_	_	
EXPORTED 3/	624	113	639	1376	0	0	0	0
TOTAL	624	113	639	1376	0	0	0	0
WHITE OAK	_				_	•	-	202
WISCONSIN	2	23	172	197	5	0	5	
EXPORTED 3/	90	0	0	90	0	0	0	0
TOTAL	92	23	172	287	5	0	5	505
WELL 2011 CARCOLL								
YELLOW BIRCH	701			726	0	462	462	1188
MICHIGAN	704	11	11	726				5
MINNESOTA	0	5	0	5	0	0	0	
WISCONSIN	3479	78	764	4321	0	835	835	5156
EXPORTED 3/	135	0	0	135	0	0	0	0
TOTAL	4318	94	775	5187	0	1297	1297	6349
			*****					
YELLOW-POPLAR								_
WISCONSIN	0	0	1	1	0	0	0	1
EXPORTED 3/	4	ő	ō	4	0	0	0	0
					0	0	0	1
TOTAL.	4	0	1	5	· · · · · · · · · · · · · · · · · · ·	U	· · · · · · · · · · · · · · · · · · ·	
OTHER HARDWOODS								
		•	0	4	0	0	0	0
EXPORTED 3/	4	0	·	*	· · · · · · · · · · · · · · · · · · ·			
TOTAL	4	0	0	4	0	0	0	0
ALL SPECIES								
	, - , -			4664	0	660	660	5324
	4565	33	66		26	0	26	482
MICHIGAN	0	420	36	456 32 <b>522</b>	1552	2417	3969	36491
MINNESOTA					1557	7411	ンプロフ	20471
MINNESOTA WISCONSIN	10893	3457	18172					^
MINNESOTA		3457 322	11172	4534	0	0	0	0

^{1/} VERTICAL COLUMNS OF FIGURES UNDER BOX HEADING "PRODUCTION BY STATES" PRESENT THE AMOUNT OF VENEER LOGS CUT IN EACH STATE.
2/ PRODUCTION MINUS EXPORTS PLUS IMPORTS.
3/ VENEER LOGS SHIPPED TO STATES OUTSIDE THE LAKE STATES AND TO CANADA.

Table 2.--Mills using four species of Lake States veneer logs, by location, 1972
(In numbers)

Location	:	<b>R</b> ed oak	:	Hard maple	:	Yellow birch:	Elm
Lake States		16		16		10	20
Indiana		4		7		1	2
Illinois				1			
Ohio		1		3			
Kentucky		1		1			
Canada						1	****
Total		22		28		12	22

Table 3.--Veneer-log production and receipts in the Lake States by species, 1970 and 1972

:	P	roduction	l '	:	Receipts	
Species :	1970	1972	Change	1970	1972	Change
	Thous board	and feet 1/	Percent	Thous board	1/	Percent
Ash Aspen Basswood Beech Black cherry Butternut Cottonwood Elm Hard maple Paper birch Pecan Red oak Soft maple Walnut White oak	350 1,272 3,268 293 101 329 1,301 3,775 8,782 1,161 21 6,830 827 559 290	603 2,558 2,873 1,065 151 346 1,268 5,098 9,255 1,223 86 9,730 1,040 1,376 287	+ 72 +101 - 12 +263 + 50 + 5 - 3 + 35 + 5 + 5 + 310 + 42 + 26 +146 - 1	354 1,272 3,570 293 68 8 1,398 3,820 9,007 1,927 154 7,650 911	629 2,403 3,100 748 128 2 1,276 5,255 9,421 1,457 4 10,089 1,185 202	+ 78 + 89 - 13 +155 + 88 - 75 - 9 + 38 + 5 - 24 - 97 + 32 + 30 + 3
Yellow birch Other species	4,466	5,187 57	+ 16 - 92	6,130 256	6,349 49	+ 4 - 81
Total	34,351	42,176	+ 23	37,015	42,297	+ 14

^{1/} International 1/4-inch log rule.

Table 4.--Veneer-log production by species group for selected years, Lake States, 1946-1972 (In million board feet) 1 

,													*********	
All	2222	110.6	78.2	72.0	79.0	52.7	54.0	50.5	51.7	50.9	45.5	34.4	42.2	
Other :	2	-	5/4.7		6	7	9	و د	7.6	2.0	0 00	2.7	9.	
Walnut		ļ	1	1	۳,			2.3	0.	· .	1.7	. 9	1.4	
: Paper :		1	-	1	1	1	1	}	1	-	1.9	1.2	1,2	
: White :		-	i	1	1	i		1	!	۳.		· "	۳.	
Red:	1,1	7,3.1	4/5.1	4/5.5	4/4.5	4/4.8	4/7.6	6,8/5	0.6/7	1.6	8.2	8.9	9.7	
Soft			-	1	3.7	2.2	2.9	2.2	1.8	1,5	1.2	φ.	1.0	
Hard:	3/	2,40.3	$\frac{3}{2}$ ,23.8	$\frac{3}{20.9}$	20.1	9.7	10.9	10.5	11.8	13.1	9.6	8.8	9.5	
: Cotton- : Elm : wood :		16.6	11.5	10.5	9.6	8.9	5.1	5.7	6.3	5.7	5.4	3.8	5.1	
Cotton- wood		9.0	i	2.7	2.1	2.2	1.9	7.	1.4	1.4	1.4	1.3	1.3	
Yellow:	2/.	2,26.8	$\frac{4}{2}$ ,18.2	$\frac{2}{2}$ ,17.3	2/20.3	$\frac{2}{2}/13.1$	$\frac{2}{2}$ ,14.1	$\frac{2}{2}/10.9$	$\frac{2}{2}/11.3$	<u>4</u> / 9.5	8.3	4.4	5.2	
Beech	,	9.6	3.1	3.2	5.7	1.8	1.0	٤.	٠.	.5	.5	۴,	1.1	
: Bass-		10.4	10.4	9.2	10.3	7.1	6.2	9.9	0.9	4.5	3.6	3.2	2.9	
Aspen		○.	1.4	۳.	∞.	1.7	2.1	1.5	9.	.7	.9•	1.3	2.6	
Ash	ć	7.3	1	8.	.7	9.	1.0	9.	.7	1.1	1.0	7.	9.	
Year		1740	1952	1954	1956	1958	1960	1963	1965	1966	1968	1970	1972	

International 1/4-inch log rule.
Includes paper birch.
Includes soft maple.
/ Includes white oak.

비열등(학교

Table 5.--Veneer-log production for selected years and type of industry, Lake States, 1946-1972

(In million board feet) $^{\rm l}$ 

Standard
7.2
71
47
94
45
51
40
46.
41.
43,
77
45
40
29
38

International 1/4-inch log

rule.

Table 6.--Lake States veneer-log production, receipts, exports, and imports for selected years, 1946-1972 (In million board feet)

••					
Year :	States and received	Exported2/	: Imported3/	: production in : Lake States	: receipts in : Lake States
	at Lake States Mills				
,	1 00 1	6.0	5.9	110.6	115.6
940	TOT	. 0	12.0	116.8	128.0
876	116.0	•	2 1	9 90	101 7
050	86.0	9.	15./	0.00	
) (	27.8	7.	12.1	78.2	84.9
706	0.11		1 21	72.0	83.7
1954	71.6	7.	7.77	0.01	92.1
926	78.7	۳.	13.4	0.00	1 1 1
0 11	5.1.5	1.2	0.9	27.7	) · · · ·
000	1 7	1 6	12.5	54.0	64.4
096	6.1.6	T • 7	11.	5 05	52.7
698	45.0	٠,٠	/•/	0.5	7 75
270	0.67	2.7	7.6	21./	0.00
200			90	50.9	55.4
996	45.8	٠,٠		. v	9.74
968	39.7	2.8	6.1	t	000
1 (	31 //	3.0	5.6	34.4	0.76
2/61	F • 10	, ,	9 7	6 67	42.3
1972	37.7	4.5	0.4	7.75	1

1/ International 1/4-inch log rule.  $\frac{2}{7}$  From Lakes States to other States and Canada.  $\frac{3}{7}$  From other States and Canada into Lakes States.

Table 7.--Veneer-log receipts in the Lake States by species groups for selected years, 1952-1972 (In million board feet)1

ear			100000		•	INTERIOR . COLLOIL	•	. ,,,,,,,,		)		•		
	Ash 📜	Aspen	poom:	Beech		poom :	ETH :	: maple :	maple:	: oak	oak	: birch	: sbecies:	species
				,			-	3/26.0		4/5 3	!	1	5/5.4	6.68
952	1	1.4	10.9	3.2		1	11./	10		4/2			- \ ) r	000
0.57	œ	~	10.3	3.2	4,25.0	2.7	10.9	7]	1	5.9/	-	i	1.0	55.1
1 1 0			10.6	7		3.0	10.2			4/5.0	1	1	J.0	92.1
906		0 !	0.0	• •		, ,				4/50	i	!	7.	57.5
958	9.	1.7	7.3	F.8		7.7	7.6			4/2				7 79
040	-	2.1	8.9	6.		3°3	6.2			7,8,7	1	ì	γ.	J * * * * * * * * * * * * * * * * * * *
		1 -		. ~		7	6.4			4/9.3	1	i	5,	52.7
900	`.	O • T	•			•				4/0			1 3	36.6
965	, 7	9.	6.3	٠.		2.1	6.3			5.6	1		7 .	) ·
100		7	8	r.		2.3	5.8			9.7	. 2	i	T • 0	55.4
906	7.7	:	•			1 0				Cr Or	0	0.4	۲.	47.6
968	0.	9.	3.0	'n		7.7	7.5			0	7.	) ·	) l	
010			3 .	٣		1.4	3,8			7.7	. 2	٦ 9	٠,	3/.0
0/6	٠.	۲•۲	ว							-	c	<i>\( \)</i>	0	€ 67
1972	9.	2.4	3.1	.7		۳. ۳.	5.3			10.1	7 .	۲.٦	7	7

1/ International 1/4-inch log rule.
2/ Includes paper birch.
3/ Includes soft maple.
4/ Includes white oak.
5/ Includes ash and cottonwood.

Table 8.--Production and disposition of hardwood veneer plant residue by type of residue and use, Lake States, 1972

(In thousand cubic feet)

State	:	Wood resid	ue	:
and type	: m 1	: Coarse 1/:	2/	: Bark
of use	Total	: coarse :	rine-	:
Michigan				
Fiber products	30.0	30.0		
Industrial fuel	290.1	76.4	213.7	135.2
Domestic fuel	16.8	16.8		
Miscellaneous3/	25.9	25.9		
Not used4/	26.0		26.0	30.0
Total	388.8	149.1	239.7	165.2
Minnesota				
Industrial fuel	4.3	3.8	.5	2.5
Domestic fuel	8.8	8.8		9.0
Miscellaneous3/	5.4		5.4	
Not used4/	16.7	.9	15.8	3.5
Total	35.2	13.5	21.7	15.0
Wisconsin	1 /51 7	700 1	7/0 (	
Fiber products	1,451.7	702.1 171.2	749.6	
Industrial fuel	1,001.6		830.4	905.4
Domestic fuel	8.5	8.5	10.0	
Miscellaneous3/	152.9	133.9	19.0	201.0
Not used4/	45.8	4.7	41.1	224.2
Total	2,660.5	1,020.4	1,640.1	1,129.6
All States				
Fiber products	1,481.7	732.1	749.6	
Industrial fuel	1,296.0	251.4	1,044.6	1,043.1
Domestic fuel	34.1	34.1		9.0
Miscellaneous3/	184.2	159.8	24.4	
Not used4/	88.5	5.6	82.9	257.7
Total	3,084.5	1,183.0	1,901.5	1,309.8

<sup>3,084.5 1,183.0 1,901.5 1,309.8

1/</sup> Suitable for chipping such as veneer cores.

2/ Not suitable for chipping such as veneer clippings.

3/ Livestock bedding, mulch, small dimension and specialty items.

^{4/} Including residues burned as waste.

Table 9.--Production and imports of veneer logs, Central States, 1972 (In thousand board feet, International 1/4-inch log rule)

	:	PROUCTIO	N BY STATE	S 1/	:		IMPORTS		: TOTAL
SPECIES AND DESTINATION	: ILLINOIS	: INDIANA :	IOWA:	MISSOURI:	REGIONAL : TOTAL :	LAKE : STATES :	OTHER : U.S. :	TOTAL IMPORTS	:RECEIPTS 2
ASH	3	266	0	0	269	ì	193	194	463
INDIANA ILL.,IOWA,MO.	0	0	79	ō	79	0	0	0	
EXPORTED 3/	0	12	32	0	44	0	0	0	()
TOTAL	3	278	111	0	392	1	193	194	542
BASSWOOD							_		
INDIANA	0	11	0	0	11 252	23 0	0 2	25	
EXPORTED 3/	0	0	252	0	656	· · · · · · · · · · · · · · · · · · ·	······································	V	· · · · · · · · · · · · · · · · · · ·
TOTAL	0	11	<b>25</b> 2	0	263	23	5	25	36
BLACK CHERRY									
INDIANA	2	81	0	0	83	51	550 201	571 201	
ILL.,IOWA,MO. EXPORTED 3/	0	0	0 3	0	0	0	0	201	
TOTAL	2	81	3	0	86	21	751	772	855
_	£								
BUTTERNUT	0	2	17	0	19	312	7	319	338
INDIANA ILL.,IOWA,MO.	0	0	24	0	24	19	0	19	
TOTAL	0	5	41	0	43	331	7	338	381
COTTONWOOD									
INDIANA	0	1122	0	0	1122	0	33 1428	31 1428	
ILLIOWA.MO. EXPORTED 3/	1804 0	0	0 84	468 0	2272 84	0	0	1426	
TOTAL	1804	1122	84	468	3478	0	1461	1461	4855
ELM									
INDIANA	1	54	0	0	55	79	4	83	
ILL., IOWA, MO.	0	0 0	204 236	0	204 236	0	0	(	204
EXPORTED 3/									- 
TOTAL	1	54	440	0	495	79 	4	8:	3 342
GUM	••			•	479	0	55	5!	5 534
INDIANA ILL.+IOWA+MO.	33 11	446 0	0	0	11	0	61	6	
TOTAL	44	446	0	0	490	0	116	11	6 606
HARD MAPLE							************		
INDIANA	7	567	33	0	607	910	870	178	
ILL. IOWA . MO.	0	0	22	0	22	12	4	1	6 38 0 0
EXPORTED 3/	0	346	161	0	507	0	()		
TOTAL	7	913	216	0	1136	922	874	179	6 2425
PECAN									6 4429
INDIANA ILL.•IOWA•MO.	518 0	354 0	0 569	61 593	933 1162	30 0	3466 99	349 9	
EXPORTED 3/	24	279	0	593		0	0		0 (
TOTAL	542	633	569	654	2398	30	3565	359	5 5690

TABLE 9 CONTINUED ON NEXT PAGE

TABLE 9 CONTINU	t.U
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TABLE 9 CONTINUED	and the control of th								
RED OAK INDIANA ILLIOWA.MO. EXPORTED 3/	79 11 15	510 0 192	0 176 744	0 0 0	589 187 951	283 0 0	449 61 0	732 61 0	1321 248 0
TOTAL	105	702	920	0	1727	283	510	793	1569
SOFT MAPLE INDIANA ILLIOWA.MO. EXPORTED 3/	0 32 0	285 0 0	122 0 0	0 6 0	285 38 122	0 0 0	11 181 0	11 181 0	296 219 0
TOTAL	32	285	122	6	445	0	192	192	515
SYCAMORE INDIANA ILLIOWA.MO.	0 11	616 0	0	0 55	616 66	0 0	55 117	55 117	671 183
TOTAL	11	616	n	55	682	0	172	172	854
WALNUT INDIANA ILLIOWA.MO. EXPORTED 3/	1651 459 310	3538 0 1027	492 526 220	829 282 670	6510 1267 2227	551 438 0	1748 470 0	2299 908 0	8809 2175 0
TOTAL	2420	4565	1238	1781	10004	989	2218	3207	10984
WHITE OAK INDIANA ILL.,IOWA,MO. EXPORTED 3/	420 4 132	2179 0 408	0 8 11	98 0 54	2697 12 605	61 0 0	1264 0 0	1325 0 0	4022 12 0
TOTAL	556	2587	19	152	3314	61	1264	1325	4034
YELLOW BIRCH INDIANA	0	0	0	0	0	13	0	13	13
TOTAL	0	0	0	0	0	13	0	13	13
YELLOW-POPLAR INDIANA EXPORTED 3/	7 0	1129 14	0	0	1136 14	2	93 0	95 0	1231 0
TOTAL	7	1143	0	0	1150	?	93	95	1231
OTHER HARDWOODS INDIANA	24	85	0	0	109	4	11	15	124
TOTAL	24	85	0	0	109	4	11	15	124
ALL SPECIES INDIANA ILLIOWA.MO. EXPORTED 3/	2745 2332 481	11245 0 2278	542 1608 1865	988 1404 724	15520 5344 5348	2290 469 0	8811 2622 0	11101 3091 0	26621 8435 0
TOTAL	5558	13523	4015	3116	26212	2759	11433	14192	35056

^{1/} VERTICAL COLUMNS OF FIGURES UNDER BOX HEADING "PRODUCTION BY STATES" PRESENT THE AMOUNT OF VENEER LOGS CUT IN EACH STATE.

2/ PRODUCTION MINUS EXPORTS PLUS IMPORTS.

3/ VENEER LOGS SHIPPED TO STATES OUTSIDE THE LAKE STATES AND TO CANADA.

Table 10.--Veneer-log production and receipts in the Central States by species, 1970 and 1972

ſ	: F	roduction		:	Receipts	
Species	: 1970 :	1972 :	Change	: 1970 :	1972 :	Change
	Thousand	bd. ft. 1/	Percent	Thousand	bd. ft. 1/	Percent
Ash	296	392	+32	434	542	+ 25
Basswood	322	263	-18	25	36	+ 44
Black cherry	78	86	+10	190	855	+350
Butternut	128	43	-66	452	381	- 16
Cottonwood	4,750	3,478	-27	4,749	4,855	+ 2
Elm	556	495	-11	476	342	- 28
Gum	669	490	-27	831	606	- 27
Hard maple	796	1,136	+43	1,331	2,425	+ 82
Pecan	1,516	2,398	+58	2,994	5,690	+ 90
Red oak	1,279	1,727	+35	841	1,569	+ 87
Soft maple	550	445	-19	612	515	- 16
Sycamore	1,302	682	-48	1,362	854	<b>-</b> 37
Walnut	8,139	10,004	+23	9,978	10,984	+ 10
White oak	1,663	3,314	+99	1,965	4,034	+105
Yellow-poplar	849	1,150	+35	1,055	1,231	+ 17
Other species	641	109	-83	661	137	- 79
Total	23,534	26,212	+11	27,956	35,056	+ 25

 $[\]underline{1}$ / International 1/4-inch log rule.

Table 11.--Veneer-Log production by species groups for selected years, Central States, 1956-1972 (In million board feet)¹

r : All es : specfes	33.1	.,	.,	.,	.,	` '	•••	
- : Other : species	4.2	5.2	3,8	4.6	3.9	3.2	2.1	1.4
: Yellow- : poplar	1.6	1.1	1.6	2.3	3.0	1,3	φ.	1.2
: White	3.4	2.6	1.6	1.4	1.9	3.6	1.7	3,3
. Walnut	10.6	10.8	13.2	15.5	14.	16.1	8.1	10.0
Sycamore	9.0	.5	2.5	1.8	1.0	1.2	1.3	.7
Red : Soft oak : maple	1.8	.5	1.2	1.0	.5	7.	٠,	4.
	1.1	1.0	1.5	6.	2.3	2.1	1.3	1.7
Hickory	0.1	۲.	۲.	φ.	1.1	3.0	1.5	$\frac{3}{2}$ , 2.4
: Hard : maple	0.8	1.1	1.2	1.6	1.4	1.3	8.	1.1
- : Elm	0.9	9.	2.0	.,	2/.7	.,	9.	5.
: Cotton: wood	8.0	8.9	11.2	7.4	6.2	4.1	4.8	3.5
Year	1956	1958	1960	1963	1966	1968	1970	1972

International 1/4-inch log rule. Estimated. Pecan hickory only. નાઝારુા

Table 12.--Veneer-log receipts by species groups for selected years, Central States, 1956-1972 (In million board feet)

Year	: Cotton-	Elm	: Hard	Hickory	: Red	: Soft : maple :	Sycamore	Walnut	: White : oak	: Yellow- : poplar	: Other : species	: All : species
1956	10.9	0.8	1.2	9.0	1,3	0.8	1.3	11.4	6.7	2.8	9.9	7.77
1958	10.2	9.	1.7	۳.	1,3	۴.	1.2	13.0	4.8	1.9	6.3	41.6
1960	10.4	1.0	2.9	.2	1.4	5.	2.3	17.1	3.6	2.8	8.0	50.2
1963	8.6	1.0	3.1	1.6	6.	۰.	2.0	21.2	2.3	2.8	7.9	52.2
1966	6.7	$\frac{2}{1.0}$	3.6	1.6	2.0	4.	1.2	17.9	2.1	4.4	7.3	48.2
1968	5.7	1.0	2.7	4.9	2.3	٥.	1.1	18.4	5.2	1.9	5.1	48.8
1970	4.7	٥.	1,3	.3.0	∞.	9.	1.4	10.0	2.0	1.1	2.6	28.0
1972	4.9	٤,	2.4	$\frac{3}{5.7}$	1.6	5.	6.	11.0	4.0	1.2	2.6	35.1
_												

International 1/4-inch log rule. Estimated.
Pecan hickory only. નાઝાણ

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Table 13.--Production and disposition of hardwood veneer plant residue by type of residue and use, Central States, 1972

## (In thousand cubic feet)

State	: W	ood residu	e	:
and type	:	: 1/	:2/	: Bark
of use	: Total	. Coarse	; Fine	:
Illinois, Iowa,				
and Missouri	26.2			
Fiber products	96.3	41.5	54.8	
Charcoal	4.6	4.6		
Industrial fuel	175.5	50.8	124.7	135.0
Domestic fuel	4.2	4.2	10.1	6.1
Miscellaneous 3/	99.9	87.8	12.1	
Not used4/	235.5	47.4	188.1	120.4
Total	616.0	236.3	379.7	261.5
Iocal	010.0	230.3	3/9./	201.3
Indiana				
Fiber products	220.5	126.9	93.6	
Industrial fuel	1,314.7	409.0	905.7	621.7
Domestic fuel	167.7	83.5	84.2	58.0
Miscellaneous3/	144.4	123.4	21.0	136.8
Not used4/	96.1	2.6	93.5	8.7
Total	1,943.4	745.4	1,198.0	825.2
All States				
Fiber products	316.8	168.4	148.4	
Charcoal	4.6	4.6	148.4	
Industrial fuel	1,490.2	459.8	1,030.4	756 7
Domestic fuel	171.9	87.7	84.2	756.7 64.1
Miscellaneous3/	244.3	211.2	33.1	
Not used4/	331.6	50.0	281.6	136.8
	331.0	20.0	201.0	129.1
Total	2,559.4	981.7	1,577.7	1,086.7

^{1/2} Suitable for chipping such as veneer cores.

2/ Not suitable for chipping such as veneer clippings.

3/ Livestock bedding, mulch, small dimension and

specialty items. 4/ Including residues burned as waste.



Help save the birds, animals and flowers.